

--51. An optical disk for recording information thereon and reproducing the information therefrom, the optical disk being housed rotatably in a cartridge case:

- a disk substrate having a hole formed through the center thereof;
- a recording layer which is formed on the substrate and on which the information is recorded;
- a hub provided on the center of the substrate so as to be movable relative to the substrate, the hub having an outer diameter which is 26 or more % of that of the optical disk;
- the optical disk satisfies a relationship of  $Y/X \geq 0.015$ , where X is a projected area of the substrate and Y is a contact area between the hub and the substrate.--